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## Research & Development Tax Credit

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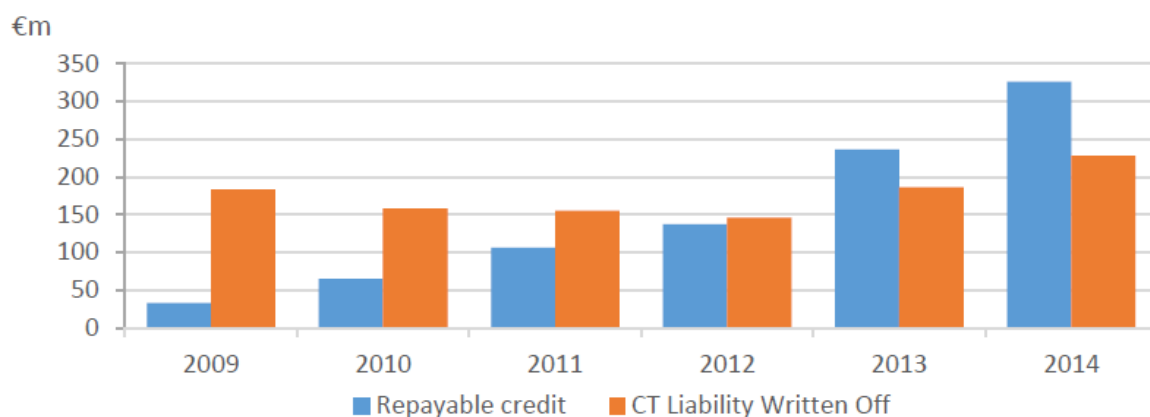
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## Research & Development Tax Credit

Ireland's R&D tax credit system is of major benefit to both multinational companies and SMEs operating in Ireland. The R&D tax credit was first introduced in Finance Act 2004 and offers a company undertaking R&D in Ireland a significant tax break, representing a potential 25% refund of costs incurred. This expenditure is also allowable as a Corporation Tax deduction, giving **an effective deduction of 37.5%** in a company's tax liability.

Where a company is loss making, or the credit due exceeds the sum of the current and previous year's tax liability, the company may apply for a cash refund from Revenue. Broadly, the only restriction in obtaining a cash refund is that the R&D credit refund cannot exceed the PAYE/PRSI remitted by the company to Revenue in the last two years or the corporation tax liability for the prior ten years if higher. Alternatively, a company may surrender part of its credit to "key employees" as an employee reward mechanism. Key employees are rewarded with a reduction in their effective income tax rate, provided that certain conditions are met by the company and the individual. These employees have to perform 50% of their activities on specific R&D. They cannot be directors of the company nor have a material interest (being 5%) in the company. An employee's effective tax rate cannot be lowered to less than 23% through this mechanism.



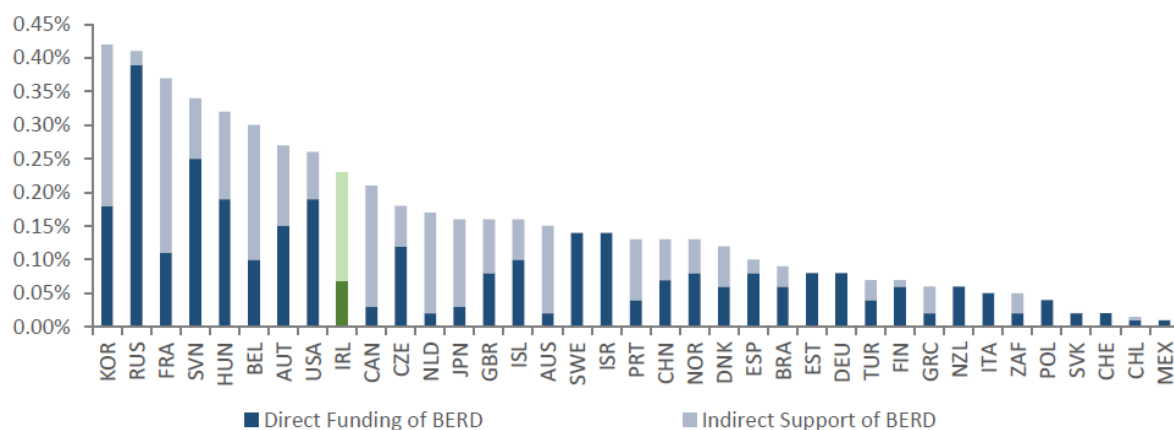
**Fig. 1** Total cost to the exchequer from 2009 – 2014. **Source:** Revenue Commissioners

### What are qualifying R&D activities?

In order to qualify for the R&D tax credit, the activities undertaken by the company must meet certain criteria. The fields of research which are eligible are:

- Engineering and Technology;
- Medical Sciences,
- Natural Sciences, and
- Agricultural Sciences.

Within these disciplines, there are three categories of activity which a company may undertake; basic research, applied research or experimental development. These qualifying activities are to involve the resolution of scientific or technological uncertainty; and should seek to achieve scientific or technological advancement. Examples of this include development of a new production process; development of new/substitute raw materials; advancements in product packaging etc.



**Fig. 2** Irish Exchequer spending as a % of GDP. **Source:** OECD

In order to utilize the R&D tax credit fully, it is important to ensure that all eligible costs are captured in the claim. Eligible R&D expenditure can come from a multitude of sources such as direct costs, e.g. salaries and raw materials, expenditure incurred on plant and machinery used for the purposes of R&D activity, or any sub-contractor costs which may have been incurred.

Where a company has received, or will receive grant assistance, then the amount received is required to be deducted from the expenditure incurred on the R&D activities. This is because the company is not deemed to have incurred the expenditure once the grant assistance has been received.

Revenue reserves the right to audit an R&D tax credit claim for up to four years after a return has been filed. The number of Revenue audits and self-reviews in the context of R&D tax credit claims is increasing. If a company receives notice of an impending Revenue audit, within fourteen days it should issue a notice of intention to make a voluntary disclosure if it wishes to make such a disclosure. This should mitigate against penalties and possible publication. The significance of any penalty depends on numerous factors such as the category of tax default, amount of tax involved, and co-operation of the tax payer during the audit, etc. The company has the right to appeal the results of the audit within 30 days.

Year	Total Exchequer Cost Cm	Number of Companies
2005	65	135
2006	75	141
2007	166	479
2008	146	582
2009	216	900
2010	224	1,172
2011	261	1,409
2012	282	1,543
2013	421	1,576
2014	553	1,570
2015	708	1,535
2016	670	1,506
2017	448	1,505

**Fig. 3** Total number of R&D Tax Credit claims, 2005 – 2017. **Source:** Revenue Commissioners and CSO

Sector	2012		2013		2014		2015		2016		2017	
	Claimants	Cost of R&D Credit Cm	Claimants	Cost of R&D Credit Cm	Claimants	Cost of R&D Credit Cm	Claimants	Cost of R&D Credit Cm	Claimants	Cost of R&D Credit Cm	Claimants	Cost of R&D Credit Cm
Manufacturing	492	137	506	241	491	379	487	526	475	480	464	227
Information & Communication	462	55	472	64	152	59	156	69	143	65	518	71
Wholesale & Retail Trade	149	46	161	57	504	55	504	59	503	64	137	78
Professional, Scientific & Technical Activities	220	25	225	33	222	33	216	35	223	43	237	50
Financial & Insurance	51	7	49	11	47	10	38	5	32	5	24	7
Administrative & Support Services	30	2	31	5	31	7	25	5	29	5	36	8
All Other Sectors	139	10	132	10	123	10	109	10	101	8	89	6
<b>Total</b>	<b>1,543</b>	<b>282</b>	<b>1,576</b>	<b>421</b>	<b>1,570</b>	<b>553</b>	<b>1,535</b>	<b>708</b>	<b>1,506</b>	<b>670</b>	<b>1,505</b>	<b>448</b>

**Fig. 4** Breakdown of the R&D credit by the business sector. **Source:** Revenue Commissioners

A common misconception about the R&D Tax credit is that many believe only multinational companies can benefit from the credit. The reality is that many Irish SMEs are engaged in activities including development of new and improved products, manufacturing processes, tools, machinery or technology which could be eligible for the R&D credit.

Indigenous Irish companies in the Food & Agri sector, Manufacturing, Construction and Engineering sectors as well as Technology and Pharmaceutical sectors are engaged in qualifying activities but are not availing of the relief they are entitled to. The perception that R&D only takes place in the laboratory is incorrect and consequently companies in these sectors don't appreciate the extent to which their expenditure might qualify.

Ireland's Research and Development (R&D) tax credit regime is a generous incentive designed to encourage investment in new and improved products and processes. The relief is a key driver of innovation for Ireland's SME's and indigenous companies and can help businesses to:

- develop new products and services;
- improve business processes;
- solve problems and improve efficiency.

The tax credit is calculated at 25% of qualifying expenditure spent on R&D activities. This credit is on top of the normal corporation tax deduction, which gives an effective tax saving of up to 37.5%. Initially the tax credit is available for offset against the current or preceding year's corporation tax liability. An excess can create cash refunds, which will benefit companies with low or nil tax liabilities. Alternatively, the tax credit can be carried forward and offset against future tax liabilities.

The objective in making an R&D tax credit claim is to ensure that you avail of the maximum amount of relief and at the same time minimise risk by ensuring that the claim meets all of the criteria required to pass Revenue's compliance tests.

While these are opposing objectives, the key to a successful R&D claim is understanding Revenue's compliance tests, namely "the science test" and "the accounting test":

## The Science Test

In order to qualify for the credit, the activities must

- ✓ Be systematic, investigative or experimental
- ✓ Be in a field of science or technology
- ✓ Involve basic research, applied research and/or experimentation
- ✓ Seek to achieve scientific or technological advancement
- ✓ Involve the resolution of scientific or technological uncertainty

The above requirements are linked to the statutory definition of R&D and can initially be perceived as being difficult to meet. However, a project does not have to be undertaken by NASA to qualify and there is no actual requirement to find a solution. The following examples are indicative of activities which are capable of passing the test.

- Creation of innovative containers enabling substantially longer shelf life of food;
- New ICT encryption and security techniques;
- Design of tools and equipment which eliminate uncertainties in manufacturing processes;
- Design and development of new products, services and devices;
- Advancements in product packaging;
- Development of new processes to reduce a manufacturing activity's impact on the environment.

## What expenditure is eligible?

In order to qualify for the tax credit the expenditure must be incurred by a company “wholly and exclusively in the carrying on by it of R&D activities”.

Eligible R&D expenditure typically comprises direct costs, e.g. salaries and raw materials, and overheads which are incurred in the carrying on of R&D activity. Plant and machinery used for R&D activities will also qualify as well as an allowance for sub-contractor costs.

Expert advice in making an R&D tax credit claim can be the difference that makes investment in R&D viable for many businesses.

R&D Cost Reduction		
	Expenditure	Tax Saving
Eligible direct costs, overheads & plant & machinery	€100,000	€37,500
<b>Net cost of R&amp;D</b>	<b>€62,500</b>	

As the Irish indigenous sector becomes more innovative in tackling the challenges of technological advancement, market disruption and Brexit, the tax credit is an important factor in reducing the cost of R&D by up to 37.5%.

*This article is the first of a three part series of articles focusing on tax and engineering. It is derived from material delivered by Grant Thornton to students taking the Innovation and Knowledge Management module in the School of Mechanical and Design Engineering TU Dublin. This first article focuses on Research and Development (R&D) tax credits. The two subsequent articles will look at the Knowledge Development Box (KDB) and Capital Allowances and Accelerated Capital Allowances (ACA). This series of articles was written by Bernard Doherty BE MIEI and James Mc Mahon BAgSc of Grant Thornton and Gerard Nagle BE MIEI and Dr Kevin Delaney CEng FIEI of TU Dublin.*